



Eliminating Outreach at the University of California:

Program Contributions and the Consequences of their Reductions

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EXECUTIVE SUMMARY

Outreach programs constitute an array of tools and services that help improve the college preparedness and eligibility of students from various backgrounds. Over 35 outreach programs exist throughout California. Most programs are administered by the University of California and are aimed at students who attend low-performing K-12 schools, are economically disadvantaged, are an underrepresented minority, or attend a community college and would like to transfer to a University of California (UC) or California State University (CSU) campus.

Since the University of California Board of Regents passed resolution SP-1—which banned the consideration of race, ethnicity and gender in admissions—college outreach programs have been the primary vehicle of achieving diversity among the UC's student body.

By 2001, UC college outreach programs:ⁱ

- Served nearly 100,000 students through student-centered programs annually.
- Sustained partnerships with 73 high schools, 55 middle schools, and 128 elementary schools statewide.
- Continued to serve a large portion of underrepresented minority students.

However, over the last few years, California's budget deficits led the Legislature to significantly reduce funding for many programs and services that were expanded just a few years ago. In the 2004-05 budget proposal, the Governor proposes to altogether eliminate General Fund support for many college outreach programs. The Governor's May 2004 Revision restores \$4 million in UC internal funds that are part of the \$12 million the UC will use to internally fund outreach programs, leaving the fate of outreach programming entirely to the UC system, as funding is no longer directly allocated by the Legislature.ⁱⁱ

Although it is clear that the state needs to reduce the deficit, the elimination of outreach programs poses a serious challenge to the future economic prospects of economically disadvantaged and underserved minority populations who tend to have the lowest earnings, lowest levels of education, and most difficult time finding jobs.

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Reductions to outreach funds, as proposed in the 2004–2005 budget, are likely to cause the following:

- Jeopardize the UC's commitment to diversity.
- Disproportionately cut services to those student populations who are in the greatest need.
- Dismantle numerous partnerships and networks between higher education and communities that have taken years to build.
- Eliminate programs and practices that have been proven to be effective in increasing college eligibility.
- Reduce the fiscal benefits that college attendance is likely to provide the state.

The value of investing in UC outreach programs is clearly evident in the case of a few programs such as the Puente Project's high school program and the Early Academic Outreach Program (EAOP). Both of these programs have been subject to rigorous evaluations that found that they did indeed increase the rate of four-year college eligibility and matriculation, respectively, among program participants.

In light of the research that supports outreach program effectiveness at increasing the rate of educationally disadvantaged and underrepresented minority college eligible students, and the positive expected returns in terms of purchasing power of program participants, program funding should be guided by the following principles:

- Sufficient funding should be provided to at least maintain the infrastructure of effective programs so that in future years additional revenues will not be spent rebuilding the programs from scratch.
- Funding should continue for those programs that have already been proven to be effective.
- Individual program objectives should be considered when evaluating outreach program efficiency. Although all outreach programs aim to increase college eligibility, they target different student populations' needs via similar sets of tools, such as tutoring, mentoring and test preparation.

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CALIFORNIA HIGHER EDUCATION

Access to higher education for all eligible students has always been a basic tenet of California's public university system—a commitment outlined in the original 1960 Master Plan for Higher Education.ⁱⁱⁱ However, by 1973, demographic analysis of the UC student body by the California Legislature's Joint Committee on the Master Plan for Higher Education found that the student body did not reflect the demographic makeup of the state. To help counter this, the Joint Committee recommended the following:^{iv}

“Each segment of California public higher education shall strive to approximate by 1980 the general ethnic, sexual and economic composition of the recent California high school graduates...”

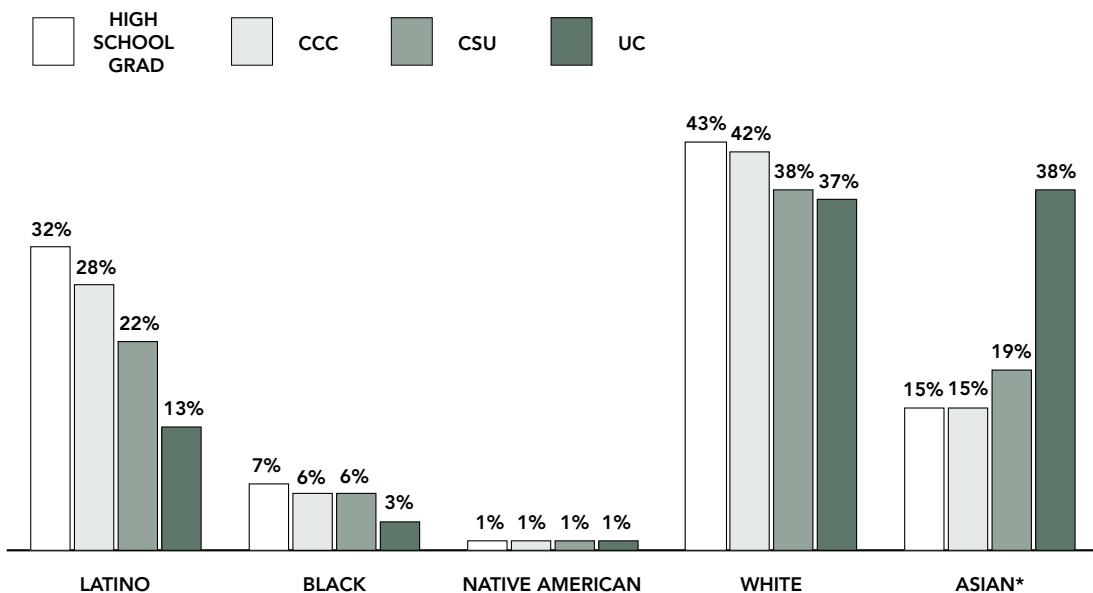
Because California's population has grown so sharply over the last few decades, admission to the UC and the CSU systems—once available to all eligible

students—has become much more competitive in recent years. Legislative committee reviews of the Master Plan for Higher Education over the last 30 years have noted that students from economically disadvantaged backgrounds, as well as those from certain underrepresented ethnic and racial minority groups¹, are significantly underrepresented in the eligibility pool of California's public university systems.

These Legislative reviews of California's Master Plan for Higher Education have consistently recommended that the Legislature ensure the development of programs and partnerships that will increase access to the public university systems by underrepresented groups to ensure that “all our people become full participants in the California enterprise.”^v However, recent demographic data on the composition of the student body of the UC, CSU, and the California Community Colleges (CCC) still shows that this goal has not been met (Figure 1).

FIGURE 1

CALIFORNIA'S DIVERSITY: 2001–02 POOL OF HIGH SCHOOL GRADUATES COMPARED TO FALL 2002 REGULAR FIRST TIME FRESHMAN ENROLLMENT



Sources: (a) Education Demographic Unit (2001), selected statewide data for the year 2001-2002; and (b) California Postsecondary Education Commission (2001), fall 2002 data. Sacramento: California Department of Education.

*The category Asian includes Pacific Islander and Filipino students.

¹ These groups include Latinos, African Americans, and Native Americans.

In the 2001–02 school year, Latinos comprised 32 percent of high school graduates in California, yet in the fall of 2002, only 13 percent of first year students at the University of California were Latino (Figure 1 on page 3). Comparatively, while non-Hispanic Whites comprised 43 percent of high school graduates, they were 37 percent of first year students at the UC, a figure more closely approximating the pool of high school graduates. Latinos and African American students appear to be better represented in the California State University system where Latinos comprise 22 percent of students and African Americans 6 percent of students. Overall, however, most underrepresented students are beginning their college education at California’s community colleges given that the percent of Latino and African American students enrolled as first year students at community colleges more closely approximates their share of the high school graduate pool.

California’s Efforts to Improve Diversity

Since the California Legislature released its 1973 Report of the Joint Committee of the Master Plan for Higher Education, which called for each segment of the public higher education system to approximate its enrollment to the demographics of recent high school graduates, California public universities have employed several methods to meet that goal. The most renowned of these efforts was affirmative action, which was eliminated in 1995 when the UC Board of Regents passed resolution SP-1—the policy that eliminated consideration of race, ethnicity and gender in admissions. Since that time, other programs have included comprehensive review of applications², increased grant opportunities for applicants, and increases in enrollment space at the universities. In addition, many initiatives aimed at increasing college eligibility among California’s diverse population come in the form of college outreach programs.

Prior to SP-1, most outreach programs primarily targeted underrepresented minority students. However, that changed after SP-1 when the UC Regents established the Outreach Task Force (Task Force) to investigate ways

² Comprehensive review is a UC admissions policy implemented in November 2001 that considers all applicant information rather than a narrow range of quantitative factors. While academic achievement remains the primary criterion for admission, a student’s full range of accomplishments is also considered, including factors such as leadership, musical and athletic talent, and community service.

³ According to the Outreach Task Force report, educational disadvantage is an obstacle to expanding minority involvement in higher education. It is a pattern of differing outcomes for racial and ethnic groups in California’s school system, with those groups least represented in higher education remaining most concentrated in the lowest performing K-12 schools.

that outreach programs could help maintain a diverse student body across the UC campuses. In 1997, the Task Force recommended that outreach programs expand participation to all students who were educationally disadvantaged,³ attended underperforming schools, and/or came from low-income backgrounds.

WHAT ARE OUTREACH PROGRAMS?

Outreach programs constitute a wide assortment of services aimed at improving the college preparedness and eligibility of students who attend underperforming K-12 schools, are economically disadvantaged, or attend a community college and would like to transfer to a UC or CSU campus. Generally, these programs fit into one of the following service areas:

- Student-centered programs that provide direct services to students such as tutoring, mentoring, test preparation, and college campus visits.
- Partnerships between a UC or a CSU with local public schools that collaboratively aim to enhance a school’s ability to prepare a student for a college education through methods such as curriculum development, professional development for teachers, the provision of on-site college counselors, and tutoring.
- Enrichment, information and summer programs for K-12, community colleges, graduate, and professional school students.
- Financial aid awareness.
- Web-based resources like online access to Advanced Placement (AP) classes and transfer requirement information for community college students.

Over 35 outreach programs exist throughout California. Most outreach programs are administered by the UC (23), but the CSU administers five and the California Community Colleges, the Student Aid Commission and the State Department of Education administer the rest (Table 1 on page 5).^{vi}

TABLE 1
PROGRAM DESCRIPTIONS FOR MAJOR UC OUTREACH PROGRAMS

PROGRAMS	GOALS
Early Academic Outreach Program (EAOP)	<ul style="list-style-type: none"> Helps potential college students get to college through course counseling and activities that aim to level academic experiences like test prep, campus visits and tutoring.
Math Engineering Science Achievement (MESA)	<ul style="list-style-type: none"> Helps students excel in math and science and graduate with math-based degrees. Provides curriculum development in math and science at partner schools and numerous enrichment activities as well as career development opportunities.
Puente Project	<ul style="list-style-type: none"> Increases the number of college graduates and those who return to the community as mentors. Provides accelerated writing program in high school and community college as well as mentors for community college students through its high school program and community college program.
P-16 Regional Alliances	<ul style="list-style-type: none"> Creates partnerships with local underperforming schools to incorporate teacher-centered and curriculum-based programs aimed at training and developing teachers and strengthening the academic foundation at partner schools where students' performance is below the statewide average.
UC College Prep	<ul style="list-style-type: none"> Provides online college preparatory courses to educationally disadvantaged high school students.
Graduate School Professional School Programs	<ul style="list-style-type: none"> Recruits and retains qualified and diverse student populations for UC graduate and professional schools through mentoring and applied research projects and programs.
Dual Admissions Program (DAP)	<ul style="list-style-type: none"> Provides an alternative route to the University of California. Students who fell between the top 4 percent and 12.5 percent of their high school graduating class but were not eligible to attend UC as freshmen were to receive a guaranteed offer of admission from a specific UC campus, provided they agree to successfully complete a transfer program at a California community college.
ASSIST	<ul style="list-style-type: none"> Facilitates the transfer of California community college students to California's public four-year universities by providing an electronic system for academic planning.
Artsbridge	<ul style="list-style-type: none"> Ensures that California high school students can meet the new "G" requirement of one year of visual or performing arts for UC admission.

Source: UC Office of the President; Retrieved from: <http://www.universityofcalifornia.edu/educators/welcome.html> (April 2004).

As can be seen from Table 1, outreach programs come in several forms and operate via specific goals and through different communication channels. For example, the Mathematics Engineering Science Achievement (MESA) program works with high schools to update their math and science curriculums, focus enrichment activities on those disciplines, and encourage students to pursue degrees in specific disciplines that will lead students to work in the high-tech industry.

The P-16 Regional Alliances also provide a great deal of direct services, but the program primarily works with schools and districts to ameliorate structural barriers to college eligibility. For example, in Kern County, a region east of Santa Barbara, several public high schools offered college preparatory courses whose content met UC admission guidelines, but were not recognized by the UC as qualifying as A–G subject classes⁴. UC Santa Barbara outreach officials working on site at Kern County schools took note and worked with the University of California to get the classes approved as A–G qualifying classes.^{vii}

Progress Update on the UC Outreach Task Force's 1997 Recommendations

In order to assist the UC in remaining accessible to students from diverse backgrounds, the Task Force redefined the eligibility criteria for outreach programs. In addition to underrepresented students, the new eligibility criteria also included educationally disadvantaged students, or students who attend the lowest performing schools and/or are disadvantaged economically or socially. In addition to expanding outreach program eligibility, the Task Force proposed (1) the expansion of academic development programs such as EAOP, MESA and the Puente Project, (2) aggressive information outreach strategies, (3) the development of school-centered partnerships (now called P-16 Regional Alliances), and (4) the employment of UC researchers to identify the root cause of educational disparities across K–12 and to evaluate the effectiveness of outreach programs. These recommendations to expand programs also called for the provision of numerical outcomes to gauge the level of program expansion and success over time.^{viii}

TABLE 2
PROGRESS ON 1997 UC OUTREACH TASK FORCE EXPANSION GOAL
BY SELECTED STUDENT-CENTERED OUTREACH PROGRAMS

Outreach Program	On Track to Meet Eligibility Goal?	On Track to Meet Eligibility Goal for Underrepresented Minorities?	On Track to Meet Competitive Eligibility Goal?	On Track to Meet Competitive Eligibility Goal for Underrepresented Minorities?
EAOP	Yes	Uncertain	Exceeded 5 Year Goal	Exceeded 5 Year Goal
MESA	Yes	Yes	Exceeded 5 Year Goal	Exceeded 5 Year Goal
Puente Project	Yes	Yes	Uncertain	Uncertain
P-16 Regional Alliances	Uncertain	Uncertain	Yes	Yes

Source: The University of California Office of the President. Retrieved from: <http://ucop.edu/outreach/srreport.pdf> (April 2004).

⁴ “A–G” courses are the subject requirements for admission to the UC.

The following sections will discuss the goals set by the Task Force for the two different types of outreach programs.

Academic- and Student-Centered Programs:

- Will work to increase the number of UC-eligible program graduates from disadvantaged backgrounds by 100 percent between 1997 and 2002.
- Will work to increase the number of competitively eligible program graduates from disadvantaged backgrounds by 50 percent between 1997 and 2002.

P-16 Regional Alliances/School-Centered Programs:

- Will work to increase the number of competitively eligible students from partner schools by 50 percent—or the competitively eligible rate in these schools by two percentage points, whichever is greater—between 1997 and 2002.

In the fall of 2002, former UC President Richard Atkinson created the Strategic Review Panel (Panel), a select group of representatives from public education and private enterprise to evaluate the university's educational outreach efforts since the issuance of the Task Force recommendations in 1997.^{ix} The Panel's evaluation was based on annual measurements of progress over a five-year period beginning with a baseline measure set in 1998–99 and ending in 2003–04. The most recent data available was from 2001–02, three years into the five-year measurement period. The Panel assumed that by the third year the programs' results should reach 60 percent of the original goal in order to meet 100 percent of that goal in the fifth year.

In the Panel's evaluation of selected outreach programs and their ability to meet the five-year numerical goals set by the Task Force, it is determined that the EAOP, MESA, and the Puente Project—as well as the P-16 Regional Alliances are on track (Table 2 on page 6). However, when one considers whether the same proportion of underrepresented minority students are becoming eligible in these programs, it is clear that MESA and the Puente Project have met this goal but EAOP has not. In regards to competitive eligibility, the more stringent academic standards for admission

at more competitive campuses, both EAOP and MESA have already met their five-year expansion goals but the Puente Project has not. The attainment of these numerical goals appears to be much more elusive in the P-16 Regional Alliances. Although the panel did find that they are on track to meeting the five-year eligibility goal and that competitive eligibility among underrepresented students improved at a much higher rate, 61 percent, than the rate for all students, 39 percent.

The Strategic Review Panel concluded that generally positive results from these outreach strategies contributed strongly to enrollment growth at the university. While the Panel did conclude the growth in enrollment cannot be conclusively attributed to the effectiveness of outreach programming, they did find that the increases in the number of underrepresented students attending a UC were positively influenced by the university's combined outreach efforts.

However, while outreach programs were relatively successful in meeting the five-year Task Force goals, these results should not necessarily be used as a benchmark for causation because the program goals were based on increasing numeric values rather than increasing percentages. Therefore, a program may have significantly increased the number of college-eligible students but it may largely be due to programmatic expansion rather than effect.

Results of Expansion of Program Participant Makeup

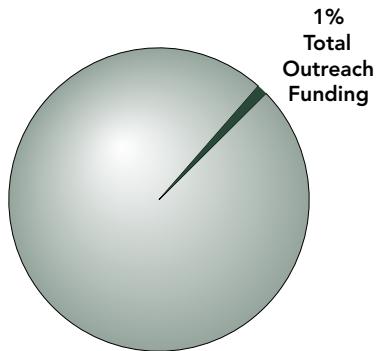
Four years after the first Outreach Task Force report, a 2001 status report on UC educational outreach programs indicated that at that time outreach efforts:^x

- Served nearly 100,000 students through student-centered programs annually.
- Sustained partnerships with 73 high schools, 55 middle schools, and 128 elementary schools statewide.
- Continued to serve a large portion of underrepresented minority students through the student-centered programs. In 2001 underrepresented minority students comprised 75 percent of Puente Project participants, 66 percent of MESA participants, and 66 percent of EAOP participants.^{xi}

FIGURE 2

2003–04 OUTREACH PROGRAM FUNDING AS A PROPORTION OF THE TOTAL GENERAL FUND ALLOCATION TO UC*

Total Outreach Budget: \$31.9 million
Total UC Budget: \$2.9 billion



* Does not include revenues generated through tuition

Source: California State Legislative Analysts Office (LAO) (2004). UC education budget. Analysis of the 2004–05 Budget. Sacramento: LAO.

Funding for outreach programs was relatively level until 1997 when the Outreach Task Force Report recommended significant scaling-up of existing outreach services in order to meet the SP-1 goal. The Legislature significantly increased outreach funding from \$23 million in 1997 to \$83 million in 2001–02 (Figure 3 on page 9). It is also evident that after the 2001–02 budget year, the Legislature began to cut significant portions of outreach funding.

Due to the state of California's \$17 billion dollar deficit in the 2004–05 fiscal year, the Governor's budget proposes to altogether eliminate funding for many college outreach programs. Although the Governor's May 2004 Revision restores \$4 million in UC internal funds which will be part of the \$12 million in internal funds that the UC is putting up to sustain some outreach programs in 2004–05, the budget proposal and revision do not include any General Fund monies for outreach.^{xiii} In fact, if the 2004–05 budget is adopted as is, funding for UC outreach programs will decrease to levels below those of 1997.

Proposed Elimination of Funding for Some Outreach Programs

In the 2004–05 UC budget proposal, the Governor suggests cutting the entirety of funding for over 20 programs.^{xiv} Table 3 (page 10) shows the changes in funding over the last year for these 20 programs.

Many programs have experienced serious funding cuts relative to their 2002–03 allocations, which had also undergone a funding reduction the prior year (Table 3 on page 10). The Governor's budget includes funding for only one outreach program, Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), a program funded by five-year grants from the U.S. Department of Education to states to provide services at high-poverty middle and high schools.^{xv}

Funding Cuts Across the University of California

Only three programs in the UC budget are being subjected to drastic cuts when one considers their individual overall program budget: the California Digital

⁵ The General Fund is used as the major funding source for education, health and human service programs, youth and adult correctional programs, and tax relief.

Project, the Institute of Industrial Relations at UC Berkeley, and the outreach programs. Several other areas of the UC budget were also subject to funding cuts such as subsidies for undergraduate and graduate fees, subsidies for professional school programs, subsidies for out-of-state tuition, and a subsidy for excess units. Although these latter cuts ranged from \$62 million to \$9 million (according to the January budget) they are to be offset by fee increases unlike the program cuts in Table 4 (page 11).

Although it is not clear why the Legislature has targeted outreach programs for funding reductions over the last few years, the Strategic Review Panel on UC Educational Outreach convened in 2002 and found that:^{xvi}

“Some of the differences in opinion regarding the effectiveness of outreach efforts, particularly among policymakers, relates to the lack of clear and concise communication.”

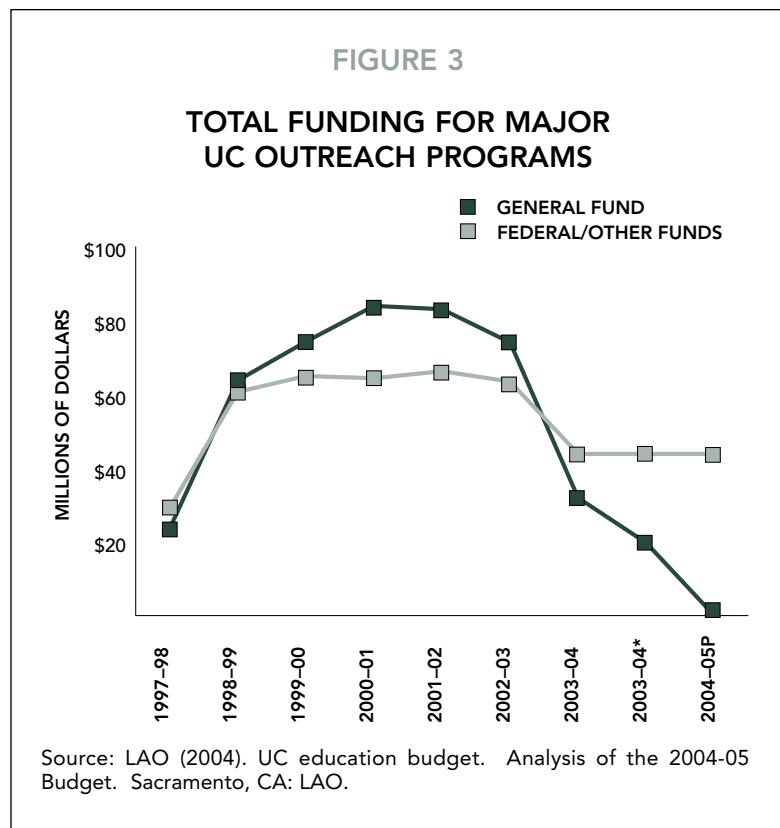
It appears that it has not been entirely clear to the Legislature whether outreach programs achieve the desired effect of increasing college eligibility or if the programs' outcomes are biased by hand-selecting program participants who are likely to succeed.

OUTREACH PROGRAMMING CRITICISMS

The spring 2004 review of the outreach budget proposal by the Legislative Analysts Office (LAO), the policy evaluation unit of the Legislature, concluded that outreach programs need to be significantly reformed to improve their efficiency. Specifically, the LAO appeared to have two overarching concerns with the operation of outreach programs. They were as follows:

- 1 Programs are redundant since many programs have the same goal of increasing eligibility and employ the same tools to boost eligibility such as tutoring, mentoring and test preparation.
- 2 A causal link has not been established by the research community demonstrating program effect.

⁶ NPEC is supported by the National Center for Education Statistics. This report brought together fifteen individuals with extensive research and/or experimental backgrounds in the issues surrounding access to post-secondary education.



However, these conclusions are misleading because they give the impression that they are applicable across all outreach programs when, in fact, the critique may only apply to a specific case. The critiques do not consider the wide range of program goals and operations and ignore current developments in outreach programming and operations. In addition, they give the impression that the programs are ineffective and shallow in scope, when in fact, several programs have demonstrated program efficacy and have made tremendous efforts to provide more depth to outreach programming. The following section will address the LAO's concerns individually.

LAO CONCERN #1: Redundancy in Programs

The LAO's first point does not consider the context in which certain tools, like tutoring, are employed across different programs. Independent research, such as the study by the National Postsecondary Education Cooperative (NPEC)⁶, indicates that successful outreach programs need to employ multiple tools in order to be effective at increasing college attendance.

TABLE 3
GENERAL FUND REDUCTIONS TO MAJOR UC OUTREACH PROGRAMS
2004-05 PROPOSED BUDGET

PROGRAM	MAJOR UC OUTREACH PROGRAMS		BUDGET ALLOCATIONS		2004-05 Proposed Funding
	2002-03 (in thousands)	2003-04* (in thousands)	% Change		
EAOP	16,055	7,841	-51%	0	
MESA	10,257	5,246	-49%	0	
UC College Prep	7,241	4,000	-45%	0	
P-16 Regional Inter-segmental Alliances	6,145	1,500	-76%	0	
Community College Transfer Programs	4,401	2,037	-54%	0	
Graduate and Prof School Programs	4,216	2,148	-49%	0	
Other Outreach Programs	3,314	1,282	-61%	0	
Puente Project High School Program	2,944	1,151	-61%	0	
Information Outreach and Recruitment	2,261	863	-62%	0	
Central Valley Programs	1,604	1,212	-24%	0	
Student Initiated Outreach/Yield	1,105	535	-52%	0	
Evaluation	1,036	353	-66%	0	
Research	940	400	-57%	0	
Test Prep	778	397	-49%	0	
MESA Community College Programs	621	156	-75%	0	
Artsbridge	515	190	-63%	0	
Dual Admissions	499	1,250	151%	0	
Pruess Charter School	411	500	22%	0	
ASSIST	384	430	12%	0	
Puente Project Community College Program	304	435	43%	0	

* Does not reflect proposed mid-year reductions.

Source: Governor's Budget Proposal 2004-05. Retrieved from: <http://www.documents.dgs.ca.gov/osp/GovernorsBudget05/pdf/ed.pdf>

TABLE 4
GENERAL FUND REDUCTIONS AT THE UNIVERSITY OF CALIFORNIA
(IN MILLIONS OF DOLLARS)
2004-05 PROPOSED BUDGET

	(Cuts in Millions)	(% of Program Budget Cut)
Academic and Institutional Support	\$ 45.4	7.5%
Student to Faculty Ratio**	\$ 35.2	5%
Outreach Programs	\$ 33.3	100%***
New First-Year Enrollment	\$ 24.8	(N/A)
Digital California Project	\$ 14.3	100%
Research	\$ 11.6	5%
Labor Studies	\$ 4.0	100%

Source: (a) Office of California Governor Arnold Schwarzenegger (2004). Appendix one. 2004-05 Governor's Budget. Sacramento: California State Department of Finance (January). (b) UC Regents (2004). News Section. Retrieved from <http://www.universityofcalifornia.edu/news/compact/welcome.html> (May 2004)

**Retrieved from: <http://www.universityofcalifornia.edu/news/compact/welcome.html> on May 9, 2004

***Does not include GEAR UP funding that is allocated from the federal government or funds allocated for the state's proposed new program to counsel first year students at community colleges who cannot attend a UC due to enrollment restrictions.

In addition, California outreach programs are diverse in focus and thus have specific goals that often utilize the same tools to serve their varied student population targets. For example, MESA needs tutors with math and science backgrounds to assist their participants with their science schoolwork. In comparison, the Puente Project also utilizes tutors to assist program participants with its writing curriculum, and EAOP uses tutors to assist students who are more academically prepared, but are still lacking study skills and academic support. Thus, while the tool employed is the same, it is used in a distinct environment to serve distinct student populations with different needs.

The variance of needs across the targeted student population is important and noteworthy primarily because it is the students' needs that have driven the development of outreach programs over the years. For example, the logic behind the science focus of MESA is evident when considering that in 2001, 76.2 percent

of all science and engineering bachelor's degrees went to non-Hispanic White students compared to 3.7 percent to Latino students and 7.2 percent to African Americans. The imbalance is even more pronounced at the master degree level. In 2001, 76.9 percent of all science and engineering master's degrees were earned by non-Hispanic White students, compared to 3.3 percent by Latino students and 3.1 percent by African American students.^{xvii}

LAO CONCERN #2: **No Demonstrable Effect**

The LAO's second point does not consider independent evaluations that speak to outreach programs' efficacy. Two of the student-centered outreach programs, EAOP and the Puente Project's high school program, have been subject to rigorous evaluations (Quigley, 2003 & Gándara 2002), both of which indicated that indeed there is a positive program effect. Because

many outreach programs have guidelines for program participation, they are often accused of hand-selecting already successful students who are likely to go to college. Recognizing this critique, these two studies built research designs that attempted to correct for the biased sample of program participants.

The Quigley (2003) study focused on the effect of EAOP by examining the college eligibility outcomes of the following two student groups:^{xviii}

- Students who have a high probability of participating in EAOP who attend schools that offer EAOP.
- Students who have a high probability of participating in EAOP who attend schools that do not offer EAOP.

The study analyzed the course-taking behavior of these two cohorts in a large urban school district in California from 7th-12th grades. It found that students who participate in EAOP throughout high school are twice as likely to complete UC preparatory coursework by the end of 12th grade than are non-participants.

The Gándara (2002) study focused on measuring the effect of the Puente Project's high school program on program participants. To examine the impact of the program on aspirations, attitudes toward school, and preparation for college, she surveyed 1,000 Puente Project and 1,000 non-Puente students from 18 high schools. To test the program's impact, she collected data from 75 matched pairs of Puente Project and non-Puente students. She found that Puente Project students have much higher aspirations for 4-year college attendance than non-Puente students and that they maintain those aspirations until the spring of their senior year. In addition, she found that Puente Project students reported going on to four-year colleges at nearly double the rate of non-Puente students with the same grades and test scores.

In addition, outreach programs are under constant scrutiny and evaluation. Many of the recommendations for program development by the LAO echo those in the Strategic Review Panel's 2003 Final Report.^{xix} This report is essentially a policy document to direct the development and direction of outreach programs.

Is College Outreach Meaningful? Independent Research Findings

In 2001, the NPEC conducted a broad review of K-12 outreach programs across the 50 states.^{xx} Analysis of published literature, state-level survey data, foundation, government, and other organization interviews found that most programs did not provide evidence for empirical links between program services and student outcomes. However, the NPEC researchers did find 13 programs that had undergone rigorous program evaluations whose findings shed light on effective practices in increasing college access among educationally disadvantaged students. Although the evaluations were not designed to test which elements of a program are most effective, the researchers were able to draw some inferences regarding overall program effect. The following program elements are identified as key features of successful programs:

- 1 A mentor/caring individual to monitor progress over a long period of time.
- 2 Providing high-quality instruction through access to the most challenging courses in the school.
- 3 Long-term investment in the student; the longer a student was in a program, the more likely they were to go to college.
- 4 Attention to cultural backgrounds of students.
- 5 A supportive peer group.
- 6 Providing financial assistance and incentives to level academic experiences (e.g., SAT prep, and college campus visits).

The study also found that the most effective programs appeared to be capable of at least doubling the college going rate of participants. Program limitations generally focused on the lack of evaluative data such as progress in student achievement and long-term impact, as well as discontinuity across institutional segments, low male participation and the small size of programs.

Based on the NPEC study described above and a review of each program's operations, the four major student-centered outreach programs—EAOP, MESA, the Puente Project, and the P-16 Regional Alliances—employ most, or in the Puente Project's case, all of the key features of successful programs (Table 5 on page 13).

TABLE 5
**COMPARISON OF UC OUTREACH PROGRAMMING AND RESEARCH-BASED
 BEST PRACTICES FOR SELECTED STUDENT-CENTERED PROGRAMS**

BEST PRACTICES	EAOP	MESA	Puente Project	P-16 Regional Alliances
1. Long-Term Mentor	Not Clear*	Not Clear	Yes	Not Clear
2. High Quality Instruction	Yes	Yes	Yes	Yes
3. Long Term Investment	Yes	Yes	Yes	Yes
4. Attention to Cultural Background	Not Clear	Not Clear	Yes	Not Clear
5. Supportive Peer Group	Yes	Yes	Yes	Not Clear
6. Provides Financial Assistance/Awareness	Yes	Yes	Yes	Yes

Source: (a) Gándara (2002), (b) Quigley (2003), (c) UC Santa Barbara <http://www.campusoutreach.ucsb.edu>, (d) UC program descriptions <http://www.universityofcalifornia.edu/collegeprep/studentprep.html>, and telephone...Santa Cruz.*Analysis did not provide evidence to qualify the provision of this service.

In terms of program limitations, only two programs have been the subject of rigorous program evaluations, using matched control groups. Quigley (2003) found that in comparison to a non-EAOP matched control group, EAOP doubled the rate of A–G course completion among EAOP participants.^{xxi} Gándara (2002) concluded that Puente Project participants were twice as likely to attend a UC or CSU campus as students in the non-Puente Project matched control group.^{xxii} Thus, a student who participates in either the EAOP or the Puente Project's high school program will be more likely to be prepared for and attend college than a student who does not participate in either program.

Evaluations of the MESA and P–16 Regional Alliances programs are not as well documented. MESA is in the process of assessing the results of an independent analysis. The P–16 Regional Alliances are not centrally governed, thus coordination and evaluation takes place at each UC campus. Thorough evaluations of these partnerships were found only at UC Santa Barbara.^{xxiii} Although these evaluations are not as rig-

orous as the Puente Project's high school program and EAOP evaluations, their qualitative and descriptive findings indicate that the high schools that partner with UC Santa Barbara serve some of the lowest performing students in the county, and are making progress towards increasing the number of applications, admissions, and enrollments at UC Santa Barbara. Many local teachers and principals indicate that these partnerships have increased skills among staff regarding effective teaching strategies and have overall elevated awareness regarding college preparation for their students.

In addition, EAOP, MESA, the Puente Project, and P–16 Regional Alliances focus on long-term impact, and provide services across institutional segments (Table 5). However, despite expansion, most programs are still relatively small when considering that about three million, or 49 percent,^{xxiv} of California public school children are economically disadvantaged⁷ and thus likely in need of academic intervention. Students from low-income households are less likely to complete a bachelor's degree than students from high-income households.^{xxv}

⁷ Economic disadvantage is derived through the proxy measure of students who qualify for the National School Lunch Program.

IS OUTREACH WORTH IT?

The monetary value of outreach programs is not often clear for what appears to be three reasons:

- 1 The tangible results—college enrollment—take years to manifest.
- 2 The effect of each tool such as mentoring, test preparation, or campus visits is very difficult to measure.
- 3 Because program evaluation is labor intensive, the undertaking is expensive and therefore not enough evaluation is done to demonstrate outreach program effectiveness.

Thus, policymakers eager to demonstrate results to their constituents cannot easily point to demonstrable results because they take time to become apparent, and require resources to investigate and document.

However, research does support the conclusion that the Puente Project's high school program is indeed effective at increasing four-year college enrollment among educationally disadvantaged students. Specifically, a study conducted by Gándara (2002) found that Puente Project participants attended a UC or CSU at nearly double the rate of non-Puente Project students. Using this finding and other life-outcome assumptions, the following examination provides a simple cost-benefit analysis that considers the following:

- Cost to the state of sponsoring the Puente Project.
- The earnings benefit of acquiring a college degree vs. a high school diploma.
- The added monetary economic gain for the state in funding the program despite relatively low levels of UC/CSU matriculation by program participants.

The calculations to follow regarding the Puente Project's high school program costs only reflect the monies allocated from the General Fund. The actual cost of the program may indeed be slightly higher due to the use of additional federal and private grants for the provision of direct services.

Estimate of the Puente Project Cost to the state of California^{xxvi}

In the 2000–01 school year, the Puente Project's high school program received about \$1.3 million in state funds. That same year, the program served 3,067 students. If we assume that an equal amount of funds was spent across all students, we can find cost per student by applying the following formula:

$$\text{Total program funds } (\$1.3 \text{ million}) \div \text{number of participants } (3,067) = \$423 \text{ per student.}$$

Earnings Benefit of College Degree

Table 6 (page 15) provides an earnings comparison of full-time workers age 25 and over who have a bachelor's degree to those with only a high school diploma. When we compare the median income of a college graduate to that of a high school graduate, we can estimate that college graduates are likely to earn \$22,031 more per year than high school graduates.

Long-term Economic Benefit of Puente Project Program

Not all of the Puente Project's high school program participants enroll directly in a UC/CSU after program completion. Consequently, the following analysis examines whether the cost of providing services for all of those participants who don't matriculate directly into a UC or CSU is a wise investment given the relatively low rate of UC/CSU matriculation.

Only 526 high school program participants were seniors in 2000–01. If one assumes that all of the 526 seniors participated in the program for four years, the total cost of the program for 526 students would have been \$889,992 (the actual cost may be slightly higher due to program attrition between grades 9–12).

$$\text{Per student program cost } (\$423) \times \text{number of students } (526) = \$222,498 \times 4 \text{ years} = \$889,992$$

However, of those 526 seniors, only 118 enrolled directly into a UC or a CSU⁸. And of those 118, only 59 enrollees are the result of the Puente Project program effect. According to the study by Gándara (2002), Puente Project participants were twice as likely to attend a UC or CSU. Thus, despite the fact that 118

⁸ Enrollment data is not available for other higher education institutions.

TABLE 6
EARNINGS ESTIMATES FOR COLLEGE GRADUATE, 2000

Unit	Median Annual Income, High School Diploma**	Median Annual Income, Bachelor's Degree**	Net Benefits of Bachelor's Over High School Diploma
Full Time Worker			
25 Years Old, Male	\$34,303	\$56,334	\$22,031

**Median Annual Income of year round, full-time workers 25 years old and over for men.
Source: United States Department of Education, (2000). Retrieved from <http://nces.ed.gov/fastfacts/display.asp?id=77>, (April 2004)

students enrolled in a UC or CSU, the Puente Project is only responsible for sending 59 students to college because the other 59 would have gone on their own.

In Table 6, we found that college graduates are likely⁹ to earn \$22,031 more per year than high school graduates. Thus, if we assume that all 59 UC/CSU enrollees finish college and earn a bachelor's degree in four years, these 59 former Puente Project participants are likely^{xxvii} to collectively earn \$1,299,829 more as college graduates in that first year out of college, than if they had only earned a high school degree.

Students with bachelor's (59) x income differential (\$22,031) = \$1,299,829

Assuming that all 59 students remain in California, which research indicates is very likely,^{xxviii} the economic one-year gain to California of \$1,299,829 is more than the \$889,992 the state paid to provide four years of the Puente Project's high school program to 526 students.

Now assume that these 59 college graduates earn the \$22,031 differential above their high school counterparts every year for 46 years (from age 21 until retirement at age 67), their collective "differential" earnings above a high school graduate up to retirement age would then be \$59,792,134.

Income differential for 59 students for one year (\$1,299,829) x their working careers (46 years) = \$59,792,134.

Thus, over 46 years, 59 bachelor's degrees will generate \$59,792,134 in additional economic purchasing power above that of a high school graduate. That comes to \$58,902,142 above the \$889,992 it cost the state to fund the Puente Project's high school program for 526 students for four years.

CONCLUSION

Although it is clear that the state needs to reduce the budget deficit, the elimination of outreach programs poses a serious challenge to the future economic prospects of underserved minority and educationally disadvantaged populations who tend to have the lowest earnings, lowest levels of education and most difficult time finding jobs.

Given that about three million, or 49 percent, of California public school children are economically disadvantaged and thus likely in need of academic intervention,¹⁰ it is of particular importance that funding be prioritized for programs that effectively promote access to higher education.

Research has shown that the UC outreach programs utilize proven strategies. Evaluations of the Puente Project and EAOP indicate that they are indeed effective at increasing access to post-secondary education among educationally disadvantaged students in comparison to similar non-program participants. Other outreach programs like MESA demonstrate promise with its

⁹ The earnings differential is likely to be smaller when students enter the workforce and larger as they near the end of their careers. The income differential is also likely to vary across students given their career choices.

¹⁰ Students from low-income households are less likely to complete a bachelor's degree than students from high-income households.

progressive agenda to encourage and develop skills and interest in the science and engineering disciplines. In addition, the P-16 Regional Alliances also demonstrate promise in their ability to better reach underrepresented minority and educationally disadvantaged students through their partnerships with elementary schools, and thus initiate contact with younger students before they drop out, get tracked into non-college courses of study, and become discouraged or lose interest in the promises of a higher education. In addition, the Strategic Review Panel on UC Educational Outreach concluded that outreach programs contributed strongly to enrollment growth and that the increases in the number of underrepresented students that attend the University were positively influence by the UC's combined outreach efforts.

Finally, although not all students who participate in college outreach programs immediately matriculate into a four-year university, it is likely that program participation has had a positive impact on the college-going attitudes of participants as well as their overall understanding of the higher education system. It is safe to assume that these students leave the programs much more inclined to continue a higher education than not.

However, beyond those student-centered programs discussed, many other outreach programs exist to tackle specific issues that are also barriers to college entrance, such as UC College Prep, which provides access to Advanced Placement courses online. A study by the Tomás Rivera Policy Institute (2000)^{xxix} found that high schools with high minority¹¹ student enrollments (greater than 25 percent) offer fewer AP courses compared to schools with low minority enrollments (less than 10 percent). Rural schools are also likely to offer fewer AP courses compared to urban and suburban high schools.

Unfortunately, the lack of public evaluation and research leaves outreach programs open to criticism surrounding their benefit. Nonetheless, despite some positive research findings, the funding cuts exacted on outreach programs over the last few years appear to ignore scientific results supporting their effectiveness.

RECOMMENDATIONS

Given the large monetary investment made in some outreach programs, it would make sense to provide enough funds to preserve the infrastructure of those programs proven to be effective and promising. Interviews with several outreach program officials indicate that prior budget cuts have caused the drain of outreach employees and thus, the restriction of many services.

Thus, in light of the research that supports outreach program effectiveness and the positive expected returns in terms of purchasing power of program participants, program funding should be guided by the following principles:

- Funding should continue for those programs that have already been proven to be effective.
- Sufficient funding should be provided to at least maintain the infrastructure of effective programs so that in future years additional revenues will not be spent re-building the programs from scratch.
- Individual program objectives should be considered when evaluating outreach program efficiency. Although most outreach programs aim to increase college eligibility and employ similar tools such as mentoring and tutoring to do so, they target different student populations via a variety of academic concentrations/pursuits.

In conclusion, it is important to keep in mind that outreach programs and services target students who attend the lowest performing schools in the state and who face the greatest barriers in accessing higher education. Since the public K-12 school system alone has not been able to fully address the needs of these educationally disadvantaged students in the past, it makes sense to consider alternative methods to increasing college access. Given the size of the problem at hand, the state should definitely continue engaging the public universities as partners in the challenge to provide equal opportunity to a college education.

¹¹ Namely African American and Latino students.

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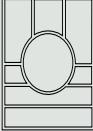
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